

SAR13423

PATENT APPLICATION
Serial No. 09/588,276**REMARKS**

Claims 1-29 are pending in the captioned Application in which claims 1-6 are allowed and claims 7-29 are finally rejected.

Rejection Under 35 U.S.C. 103(a):

Claims 7-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,731,839 to Panaro in view of US 5,040,061 to Yonemitsu.

The rejection is overcome by the amendment of independent claims 7, 13, 20 and 26. This amendment adds a clarification that the regions including the direct-coded and indirect-coded representations of the reference image portion of the at least one picture when decoded by a decoder being tested and compared test the decoder being tested. Thus, claims 7-29 as amended include a decoding of the test bitstream and a comparison of the decoded test bitstream for testing a decoder being tested, and so claims 7-29 are patentable for substantially the same reasons that allowed claims 1-6 are patentable.

Panaro et al relates to a bitstream for evaluating predictive video decoders and a method for generating same wherein the bitstream includes two predictively coded pictures (P-frames) as "anchor frames" that straddle a bi-directionally coded frame (B-frame), actually several B-frames. Specifically, the anchor frames are predictively coded with different motion vectors so that the proper decoding of the B-frames will produce a uniform gray region and improper decoding of the B-frames will produce a non-uniform gray region, e.g., one with bright dots and/or lines. (Figure 3; Column 4, lines 15-37 and column 5, lines 23-43).

Predictively coded (P-frame) pictures are indirectly coded. Even if different portions of a P-frame are coded with different motion vectors, the P-frame remains indirectly coded.

Bi-directionally coded (B-frame) pictures are indirectly coded. Therefore, all of the P-frames and B-frames in the bitstream of Panaro are indirectly coded. It is not seen where Panaro describes, or even suggests, an image or picture having two or more regions that are differently coded, i.e. a direct-coded region and an indirect coded region of a picture/frame. Panaro describes only frames, e.g., I-frames, P-frames and B-frames, and is

SAR13423

PATENT APPLICATION
Serial No. 09/588,276

not seen to describe differently coded regions of a frame or picture.

Yonemitsu, on the other hand, relates to a method and apparatus for transmitting a compressed picture signal by using different encoding techniques for portions of each frame. In particular, compression of a sequence of frames is provided in Yonemitsu so that a motion video signal may be recorded on a small capacity recording medium such as a CD ROM. (Column 1, lines 11-13; Abstract). Yonemitsu is entirely directed to video compression and does not describe or suggest a test bitstream or testing of a decoder using a test bitstream.

Yonemitsu describes a compression scheme wherein block groups of each frame in a sequence of frames are intraframe encoded and interframe encoded with the intraframe encoded block being in successively shifted positions so as to provide compression of the frames in such a way that when plural frames are scanned at a high rate, e.g., as in a "fast forward" or "search" mode, a picture is presented at least from the intraframe coded block groups. (Column 5, line 58 to column 6, line 50).

Nothing in Yonemitsu describes or suggests testing, or a test bitstream, or anything other than compression encoding, and so there is no suggestion or motivation in Yonemitsu for its being combined with Panaro. Similarly, nothing in Panaro provides any suggestion or motivation for its being combined with Yonemitsu.

The combination of Panaro and Yonemitsu is improper under the law because neither reference suggests its combination with the other. Absent some statement or suggestion within the references themselves that they should be combined, there is no nexus which could substantiate the suggested combination.

"Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so."

ACS Hospital Systems, Inc. vs. Montefiore Hospital, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

The burden is on the Examiner to particularly identify the suggestion, teaching, or motivation in the reference(s) for their combination, and not just naming similarities between

SAR13423

PATENT APPLICATION
Serial No. 09/588,276

the reference(s) and the claimed invention. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654 (Fed. Cir. 2000), 57 U.S.P.Q.2d 1161, 1166; *In re Dembicczak*, 175 F.3d 994 (Fed. Cir. 1999), 50 U.S.P.Q.2d 1614, 1618.

"[A] rejection cannot be predicated on the mere identification ... of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed."

Ecolochem Inc. v. Southern California Edison, 56 U.S.P.Q.2d 1065, 1076 (Fed. Cir. 2000) quoting *In re Rouffet*, 149 Fed.3d 1350, 1357 (Fed. Cir. 1998), 47 U.S.P.Q.2d 1453, 1456.

It is impermissible to use the claims as a frame ... to piece together a facsimile of the claimed invention, and the Examiner must avoid the "insidious effect of a hindsight syndrome wherein only that which the inventor taught is used against the teacher". *W. L. Gore & Assoc. v. Garlock*, 721 F.2d 1540, 1552, 1553, 220 U.S.P.Q. 303, 312, 313 (Fed. Cir. 1988).

In making the combination of references, the Examiner states that "it would have been obvious to ... incorporate one frame with two different encoding (interframe and intraframe) as taught by Yonemitsu into Panaro's system in order to allow the encoded video signal to be recorded on a disc-like recording medium rotated with constant linear velocity."

First, nothing in Panaro is directed to such recording or suggests a motivation therefor. Thus, the Examiner's reason is factually incorrect, and so the combination is improper on this ground alone.

Second, the Examiner's assertion is not supported by either reference, but is impermissible hindsight based upon the teaching of Applicant's invention.

"When prior art references require selective combination...to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself..."

Uniroyal Inc. vs. Rudkin-Wiley Corp., 5 U.S.P.Q.2d 1434, 1438 (Fed. Cir. 1988). It is impermissible to use the claims as a frame and the prior art references as a mosaic to piece

SAR13423

PATENT APPLICATION
Serial No. 09/588,276

together a facsimile of the claimed invention, and the Examiner must avoid the "insidious effect of a hindsight syndrome wherein only that which the inventor taught is used against the teacher". *W. L. Gore & Assoc. v. Garlock*, 721 F.2d 1540, 1552, 1553, 220 U.S.P.Q. 303, 312, 313 (Fed. Cir. 1988).

Moreover, even if such combination could be made, the resulting structure would not be that of the claimed invention but would just be that of Panaro, but which would not be operative because it would lack the required bitstream specified by Panaro, e.g., in Figures 2 and 3, and at column 4, line 45 through column 5, line 55. Specifically, the requirements set forth at column 5, lines 33-55 are not met by Yonemitsu.

The references neither describe nor suggest, for example, the bitstream comprising:

"a coded representation of a sequence of pictures wherein at least one picture of the sequence of pictures includes a region that is a direct-coded representation of a reference image portion and a region that is an indirect-coded representation of the reference image portion,

"wherein the regions including the direct-coded and indirect-coded representations of the reference image portion of the at least one picture when decoded by the decoder and compared test the decoder,"

as recited, for example, in amended claim 20.

On the other hand, Applicant's invention relates to a test bitstream comprising a coded representation of a sequence of pictures wherein at least one picture of the sequence of pictures includes a region that is a direct-coded representation of a reference image portion and a region that is an indirect-coded representation of the reference image portion. The two differently coded regions of the picture facilitate evaluation of decoding of the test bitstream by a decoder because the reference image portion of a decoded picture, e.g., produced by a decoder being tested, may be compared thereby to test the decoder.

In other words, in Applicant's invention, the at least one picture includes [at least] two regions, one region being a direct-coded representation of the reference image portion and the other region being an indirect-coded representation of the same reference image portion, represented in the test bitstream. Thus, the regions including the direct-coded and

SAR13423

PATENT APPLICATION
Serial No. 09/588,276

indirect-coded representations of the reference image portion of the at least one picture when decoded and compared test a decoder being tested.

In application, Applicant's test bitstream may be applied to a decoder being tested, and the output of that decoder includes pictures having decoded regions corresponding to the direct-coded region and the indirect-coded region. Comparing the two decoded portions of the one decoded picture will test the decoder being tested.

Because Applicant's bitstream includes a reference image with two differently coded regions, wherein the bitstream is utilized to test a decoder and the decoder being tested is, in effect, made to test itself, i.e. to test its own direct decoding function against its own indirect decoding function with respect to the reference image. If either the direct decoding or the indirect decoding or both is not properly decoding, that would be evident from the two regions of the picture when decoded and compared. This functionality is provided by Applicant's novel and unobvious bitstream as claimed.

Further, it is noted that the bitstream of Applicant's invention includes at least one picture having at least two regions in which the reference image is differently coded, thereby to facilitate in one output picture a direct comparison (e.g., side by side comparison) of the decoded versions of the two differently coded regions.

Accordingly, the method of Applicant's claim 7 is patentable at least because it recites:

"producing a bitstream of at least one picture of the sequence of pictures, wherein the at least one picture includes a region that includes a direct-coded representation of the reference image portion and a region that includes an indirect-coded representation of the reference image portion,

"wherein the regions including the direct-coded and indirect-coded representations of the reference image portion of the at least one picture when decoded by a decoder being tested and compared test the decoder being tested,"

which is not described by Panaro and/or Yonemitsu, whether taken individually or in proper combination.

Applicant's claims 8-12 are patentable at least because they depend from patentable claim 7. In addition, claim 8 recites that the direct-coded representation is intra-coded and ...

SAR13423

PATENT APPLICATION
Serial No. 09/588,276

the indirect-coded representation is one of predictively and bidirectionally coded, claim 10 recites the reference image portion has at least one indicia and a portion of the indicia is in the direct-coded region and a portion in the indirect-coded region, and claims 11 and 12 recite producing in the bitstream an additional picture that is a direct-coded representation of the reference image portion and follows the one picture that includes direct-coded and indirect-coded representations thereof, none of which is described by Panaro and/or Yonemitsu, whether taken individually or in proper combination.

In addition, the apparatus of Applicant's claim 13 is patentable at least because it recites:

"a generator of a bitstream of at least one picture of the sequence of pictures, wherein the at least one picture includes a region that is a direct-coded representation of the reference image portion and a region that is an indirect-coded representation of the reference image portion,

"wherein the regions including the direct-coded and indirect-coded representations of the reference image portion of the at least one picture when decoded by a decoder being tested and compared test the decoder being tested,"

which is not described by Panaro and/or Yonemitsu, whether taken individually or in proper combination.

Applicant's claims 14-20 are patentable at least because they depend from patentable claim 13. In addition, claim 14 recites that the direct-coded representation is intra-coded and ... the indirect-coded representation is one of predictively and bidirectionally coded, claim 16 recites the reference image portion has at least one indicia and a portion of the indicia is in the direct-coded region and a portion in the indirect-coded region, and claims 18 and 19 recite the bitstream generator generates an additional picture that is a direct-coded representation of the reference image portion and follows the one picture that includes direct-coded and indirect-coded representations thereof, none of which is described by Panaro and/or Yonemitsu, whether taken individually or in proper combination.

Further, Applicant's claim 20 is patentable at least because it recites:

"A bitstream for testing a decoder comprising a coded representation of a sequence of pictures wherein at least one picture of the sequence of pictures includes a region that is a direct-coded representation of a reference image portion and a region that is an indirect-coded representation of the reference image portion,

SAR13423

PATENT APPLICATION
Serial No. 09/588,276

"wherein the regions including the direct-coded and indirect-coded representations of the reference image portion of the at least one picture when decoded by the decoder and compared test the decoder,"

which is not described by Panaro and/or Yonemitsu, whether taken individually or in proper combination.

Applicant's claims 21-25 are patentable at least because they depend from patentable claim 20. In addition, claim 21 recites that the direct-coded representation is intra-coded and ... the indirect-coded representation is one of predictively and bidirectionally coded, claim 23 recites the reference image portion has at least one indicia and a portion of the indicia is in the direct-coded region and a portion in the indirect-coded region, and claims 24 and 25 recite the bitstream includes an additional picture that is a direct-coded representation of the reference image portion and follows some picture in the sequence of pictures, none of which is described by Panaro and/or Yonemitsu, whether taken individually or in proper combination.

Finally, the storage medium of Applicant's claim 26 is patentable at least because it recites:

"means for causing a computer to produce a coded bitstream that includes at least one picture of the sequence of pictures, wherein the at least one picture includes a direct-coded representation of the reference image portion and an indirect-coded representation of the reference image portion,

"wherein the regions including the direct-coded and indirect-coded representations of the reference image portion of the at least one picture when decoded by a decoder being tested and compared test the decoder being tested,"

which is not described by Panaro and/or Yonemitsu, whether taken individually or in proper combination.

Applicant's claims 27-29 are patentable at least because they depend from patentable claim 26. In addition, claim 27 recites means for causing the computer to produce an intra-coded representation of the reference image portion, and claim 28 recites means for causing the computer to produce one of a predictively-coded and a bidirectionally-coded representation of the reference image portion, none of which is described by Panaro and/or Yonemitsu, whether taken individually or in proper combination.

In addition, it is submitted that nothing in Panaro and/or Yonemitsu, whether taken

SAR13423

PATENT APPLICATION
Serial No. 09/588,276

individually or in proper combination, even suggests the novel and unobvious features of the method, apparatus, bitstream, and storage medium recited by Applicant's patentable claims as set forth herein.

Accordingly, the rejection under 35 U.S.C. 103(a) is overcome and should be withdrawn.

Formal Drawing:

Applicant previously submitted two (2) sheets of formal drawing in a separate paper addressed to the Official Draftsperson.

Confirmation in the next paper of the approval thereof is again solicited.

Information Disclosure:

On Nov. 10, 2003, Applicant filed a Letter to the Examiner requesting correction of the patent number of US 5,798,788 to Meehan et al which had previously been cited and made of record (A copy of the PTO-1449 initialed by the Examiner was mailed with the Office communication mailed on December 4, 2002). Another copy of the PTO-1449 citing Meehan et al, but with the correct patent number written thereon, is enclosed for the Examiner's convenience.

Confirmation that the correction has been made and that the correct patent has been made of record is again requested.

Conclusion:

Applicant respectfully requests that the amendment herein be entered as is proper under the Rules, that the rejection be withdrawn, and that the Application including claims 1-29 be allowed and passed to issuance.

The number of claims remaining being the same as or less than the number previously paid for, no fee regarding the claims is due in consequence of this response. However, should any fee be due in consequence of this response, please charge such fee and deposit any

SAR13423

PATENT APPLICATION
Serial No. 09/588,276

refund to Deposit Account 04-1406 of Dann, Dorfman, Herrell & Skillman.

The Examiner is requested to telephone the undersigned attorney if there is any question or if prosecution of this Application could be furthered by telephone.

Respectfully submitted,
Dann, Dorfman, Herrell & Skillman, P.C.
Attorneys for Applicant(s)

By: _____
Clement A. Berard
PTO Registration No. 29,613

November 29, 2004

Dann, Dorfman, Herrell and Skillman, P.C.
1601 Market Street, Suite 720
Philadelphia, PA 19103

Telephone: 215-563-4100
Facsimile: 215-563-4044

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.